Message

From: Praskins, Wayne [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F47BC0A2C2E42A98347D59CD1A98B19-WPRASKIN]
Sent: 10/26/2020 9:17:04 PM
To: Chesnutt, John [Chesnutt.John@epa.gov]
Subject: Recent email exchange with Dan Hirsch

From: Daniel Hirsch <danielhirsch558@gmail.com>
Sent: Thursday, October 8, 2020 4:43 PM
To: Praskins, Wayne <Praskins.Wayne@epa.gov>
Cc: Sanchez, Yolanda <Sanchez.Yolanda@epa.gov>; Walker, Stuart <Walker.Stuart@epa.gov>
Subject: Re: EPA review of NAVY Building Remediation Goals

Wayne,

Your response creates more questions than answers. See below (in green font).

Dan

> On Oct 8, 2020, at 2:04 PM, Praskins, Wayne <Praskins.Wayne@epa.gov> wrote:
>
> Dan -
>
> Please see responses below (in red font).
>
> Wayne Praskins | Superfund Project Manager
> U.S. Environmental Protection Agency Region 9
> 75 Hawthorne St. (SFD-7-3)
> San Francisco, CA 94105
> 415-972-3181
>
> -----Original Message-----
> From: Daniel Hirsch <Ex. 6 Personal Privacy (PP)>
> Sent: Tuesday, October 6, 2020 10:57 AM
> To: Praskins, Wayne <Praskins.Wayne@epa.gov>
> Cc: Sanchez, Yolanda <Sanchez.Yolanda@epa.gov>; Walker, Stuart <Walker.Stuart@epa.gov>
> Subject: EPA review of NAVY Building Remediation Goals
>
> Dear Wayne,
>
> We read with interest your letter of August 20, 2020, to the Navy "EPA Review of Navy Draft Evaluation of Radiological Remediation Goals for Onsite Buildings-Hunters Point Naval Shipyard Superfund Site."
>
> We would appreciate it if you would provide us with the documents providing the basis for:
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> 1. The claims that no contamination could possibly exist on surfaces inside any building higher than 6 feet on walls and none on ceilings.
>
> = No, that's not what our letter says. The Navy's RESRAD BUILD evaluations assume that contamination is present only on the floor. We think a more conservative/protective assumption is to assume that the contamination may also extend to the lower walls. When applying the remediation goals (RGs), we

would expect the Navy to provide evidence that the extent of contamination in the building being evaluated is consistent with this assumption (i.e., evidence that the upper walls and ceiling are not contaminated if the contamination is assumed limited to the floor and lower wall).

That there can't be contamination on the ceilings or on walls higher than 6 feet at HPNS is indeed what your letter says. I quote: "Our proposal uses a modified version of the BPRG calculator. We determined that one of the assumptions built into the BPRG calculator may be overly conservative and inappropriate at HPNS. That is the assumption that fixed contamination is present on all six interior building surfaces (four walls, ceiling, and the floor). To better represent conditions at HPNS, we worked with EPA's National Superfund Radiation Expert and ORNL to make use of a modified version of the BPRG calculator that assumes that any fixed contamination remaining in the buildings is limited to the floor and lower six feet of the interior walls. Our preliminary calculations using the modified version of the BPRG calculator indicate that the majority of the radiological building RGs remain protective for fixed contamination."

You assert in the letter that you have "determined" that the assumption in the BPRG of fixed contamination present on all six building surfaces may be "overly conservative and inappropriate at HPNS" and that it "better represents conditions at HPNS" to modify the BPRG calculator to assume "that any fixed contamination remaining in the buildings is limited to the floor and lower six feet of the interior walls." I have asked for the basis of your determination that there can't be contamination above six feet. I gather that you have no such evidence at present, but if that is not the case, I would repeat our request that you provide the evidence if it exists.

2. The statement: "Our preliminary calculations using the modified version of the BPRG calculator indicate that the majority of the radiological building RGs remain protective for fixed contamination." We would appreciate if you would also provide the identification of the Remediation Goals (RGs) that are not protective and the comparison of those values with the values the Navy has been using, as well as the comparison of your modified BRPGs against the RGs that you now assert are protective.

=> Our letter doesn't say that the RGs are not protective. The preliminary evaluation described in our letter, using a modified version of the BPRG calculator, estimates cancer risk for four radionuclides in the 1 x 10-4 to 2 x 10-4 range. A risk above 1 x 10-4 is protective in some circumstances. The four radionuclides, the current RGs, and the modified preliminary remediation goals (PRGs) referred to in our letter associated with a 1 x 10-4 cancer risk are:

	RGs for Fixed Contamination - Residential Exposure	
	HPNS RGs *(dpm/ 100 cm2)*	**Modified PRGs at 1 x 10-4 cancer risk** *(dpm/ 100 cm2)*
Cs-137	5000	3650
Co-60	5000	2500
Eu-152	5000	2350
Eu-154	5000	2900

As indicated above, your letter says that you have modified EPA's own BPRG calculator to assume no contamination above 6 feet. Based on that assumption, for which we requested the evidence on which it was based, your letter says "the majority of the radiological building RGs remain protective." (emphasis added) The term "majority" indicates that for a minority of the radionuclides, the statement is not true. You have provided Modified BPRGs, at 10^-4 risk levels, for only four radionuclides. Our question was for the results for the "minority" of radionuclides assessed that, even with your modifications to the input assumptions, showed the Navy's RGs to be outside the protective range.

[As a side matter, we note that the values you report above are far lower than what would be produced by the BPRG calculator using its defaults with only the wall and ceiling inputs changed. We again request the documentation upon which these assertions are made.]

3. The statement: "We propose that BPRGs be used as limits on the removable fraction of the radioactivity (i.e.,dust). Our preliminary calculations using default exposure assumptions result in BPRGs substantially lower than 20% of the RGs." In addition to providing the documentation for this conclusion, we would appreciate it if you would provide the BPRGs you are proposing for removable radioactivity and the comparison to the RGs the Navy has been using.

=> As our letter indicates, we are unable, at this time, to support the use of RESRAD BUILD to evaluate the removable fraction of any residual radiological contamination in the buildings. In our letter we propose that the Navy consider the use of BPRGs. We are in discussions with the Navy about our proposal, and what site-specific assumptions might be appropriate in place of default exposure assumptions. As we have commented previously, the use of default values may provide inappropriately-high risk estimates, and I do not expect BPRGs based on default inputs to be adopted for use at Hunters Point. PRGs associated with a 1 x 10-4 cancer risk based on *default* exposure assumptions are:

	Limits for Removable Contamination - Residential Exposure	
	20% of RGs *(dpm/ 100 cm2)*	**BPRGs using default inputs at 1 x 10-4 cancer risk** *(dpm/ 100 cm2)*
Am-241	20	4.4
Cs-137	1000	149
Co-60	1000	126
Eu-152	1000	101
Eu-154	1000	204
H-3	1000	77,256
Pu-239	20	4.1
Ra-226	20	1.2
Sr-90	200	51
Th-232	7.3	2.4
U-235	97.6	4.7

These should be the same values you get from the online BPRG calculator.

These values are about double what we got from the online BPRG calculator. We would again ask to be provided the basis for the conclusions.

We also note that while you assert that the default values may be "'inappropriately high" for HPNS and you don't expect them to be used, there are numerous factors that would suggest the defaults are inappropriately low for application to HPNS.

Wayne, we reiterate our request for the documentation that underlies the assertions made in your letter to the Navy.

Thanks,

Dan

Thank you.

Dan Hirsch